**AS Unit 1: Basic Biochemistry and Cell Organisation**

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| Name: | Date: |

**Topic 1.1 Biological Compounds – Page 2**

l. **Water**

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|  |  | Completed |
| 1. | Go through PPT1 and PPT2 which look at the structure, properties and functions of water. |  |
| 2. | Read the following:   * 1.1C Biological Importance of Water * 1.1D Physical Properties of Water * 1.1E The Biological Importance of Water * Rowlands p19-20 * Toole |  |
| 3. | Answer the following:   1. Draw a diagram to show the covalent bonding within a molecule of H2O. 2. Explain the term polar and why water is a polar molecule. 3. Draw a simple diagram of 3 water molecules. Show how they would arrange themselves. Label the hydrogen bonds. 4. Two thermal properties of water are its high specific heat capacity and latent heat of vaporisation. Clearly distinguish between these 2 terms. 5. Because of its small molecular size water should, theoretically, be a gas at room temperature – explain why this is not the case. 6. Water is said to be an effective solvent, why? 7. What name is given to substances that readily dissolve in water and those that don’t? 8. Ice cubes bobbing around the surface of a glass of water. Unusual? Explain your answer. |  |
| 4. | Homework Essay:  **Explain the properties of water and why these are important to living organisms. [10]** |  |